

## REMARKS

Claims 1, 3-5, 7-12 and 21-27 are pending in the application following entry of the amendments herein. Claims 2, 6, and 13-20 are canceled. Claims 21-27 have been added as new claims. The specification has been amended to correct an error appearing in paragraph [0036]. The equation for determining linear speed at the outer surface of a rotating tube has been amended to replace the term “circumference” with the term “radius.” Support for this amendment appears in lines 4-5 of paragraph [0036] with the description that “linear speed at a point of a rotating member depends on the distance between the point and the rotational axis for the member.” For a tubular member, this distance is readily understood as the radius. No new matter has been added by the amendments herein.

## ARGUMENTS

Claims 1, 3 and 7 are rejected under 35 U.S.C. 102(a) as being anticipated by U.S. Pat. No. 6,672,363 (Schmidt). Claim 1 recites a method for controlling a roller shade comprising the steps of providing a motor, rotating a roller tube of the roller shade, and controlling the motor to vary rotational speed so as to control linear speed of the lower end of a shade fabric. As amended, claim 1 recites that the shade fabric linear speed is maintained substantially constant during multiple rotations of the roller tube.

Schmidt discloses a window shade having a creased panel that defines a triangular profile, as shown in Figure 2. Schmidt discloses a method of controlling a drive motor M to avoid resonance and minimize vibrations of the creased panel such that “the shade panel moves up and down smoothly”. (Column 1, lines 60-61). For the following reasons, however, Schmidt does not teach maintaining the shade panel speed at a constant rate *during multiple rotations of the panel roll* as required by claim 1.

Schmidt teaches a method of providing a substantially constant panel speed during a given rotation of the panel roll by periodically changing the motor speed during the rotation of the panel roll to compensate for variations in the effective roll radius that result from an out-of-roundness profile. Specifically, the speed for drive motor M is increased and decreased three times during each rotation of the panel roll to account for

the triangular profile. (Column 2, lines 16-25). This periodic control of the drive motor speed is defined, and therefore fixed, by the shape of a radial cam of a reducing gear. (Col. 2, lines 32-34). The method of Schmidt, however, does not adjust the speed of motor M from one rotation of the panel roll to the next to compensate for changes in the effective roll radius that results from wrapping of the creased panel onto the panel roll. Therefore, the linear speed of the creased panel of Schmidt will change from one rotation to the next as the creased panel is wrapped onto the panel roll. Thus, ***Schmidt does not disclose a method in which the linear speed of the panel is maintained constant during multiple rotations of the panel roll as required.***

For the foregoing reasons, Schmidt does not include each and every feature of claim 1 and, therefore, does not anticipate claim 1. Claim 3 depends from claim 1 and, therefore, is not anticipated by Schmidt for the same reasons as claim 1.

Claim 7 recites a method for controlling a roller shade having a rotatably supported roller tube. Similar to claim 1, claim 7 has been amended to recite that rotational speed of the roller tube is varied by a control system such that shade fabric linear speed is maintained substantially constant during multiple rotations of the roller tube. For similar reasons as claim 1 above, Schmidt does not anticipate claim 7.

For the foregoing reasons, the applicants respectfully request that the rejection of claims 1, 3 and 7 under 35 U.S.C. 102(a) based on Schmidt be withdrawn.

Claims 1 and 7 are rejected under 35 U.S.C. 102(a) as being anticipated by U.S. Pat. No. 6,082,433 (Vafaie). Vafaie discloses a rollup door driven by an adjustable frequency AC electric drive motor including a controller that is operable to accelerate and decelerate the motor. Vafaie teaches acceleration and deceleration of the motor during starting and stopping phases so as to provide a variable speed "soft" start and a variable speed "soft" stop to reduce stresses on components of the rollup door. (Col. 6, lines 10-22).

Vafaie does not disclose a method for controlling the motor of the rollup door such that shade fabric linear speed is maintained constant during multiple rotations of the roller tube for the rollup door. Vafaie, therefore, does not include each and every feature

of claim 1 and, therefore, does not anticipate claim 1. For similar reasons, Vafaie also does not anticipate claim 7.

For the foregoing reasons, the applicants respectfully request that the rejection of claim 1 and 7 under 35 U.S.C. 102(a) based on Vafaie be withdrawn.

Claims 3, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Schmidt or Vafaie. Claim 3 depends from claim 1 above and, therefore, recites a method for controlling a roller shade having a roller tube including the step of controlling a motor of the roller shade to vary rotational speed of the roller tube such that shade fabric linear speed is maintained substantially constant during multiple rotations of the roller tube.

For similar reasons discussed above for claim 1, neither Schmidt nor Vafaie provides the necessary teaching of claim 3 of varying rotational speed of a roller shade roller tube such that shade fabric linear speed is constant during multiple rotations of the roller tube. It is only through impermissible hindsight use of applicants' disclosure that the invention of claim 3 is obtained.

The Examiner states at page 3 of the office action that "Schmidt and Vafaie et al each provide an electronic design which is capable of being programmed to vary the speed of the roller shaft at desired times and at desired speeds." The fact that a prior art device is capable of being modified in a claimed manner is not a showing of the required teaching from the prior art. Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." In re Mills, 916 F.2d at 682, 16 USPQ2d at 1432 (Fed. Cir. 1990). The Examiner must provide a showing from the prior art of the required teaching of the claimed invention.

For the foregoing reasons, claim 3 is not rendered obvious based on either Schmidt or Vafaie.

Claims 11 and 12 depend from claim 7 and, therefore, recite that rotational speed of a roller tube for a roller shade is varied by a control system such that shade fabric linear speed is maintained substantially constant during multiple rotations of the roller

tube. For similar reasons as claim 3 above, neither Schmidt nor Vafaie renders claims 11 and 12 obvious.

For the foregoing reasons, the applicants respectfully request that the rejection of claims 3, 11 and 12 under 35 U.S.C. 103(a) based on either Schmidt or Vafaie be withdrawn.

Claims 4, 5 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Schmidt or Vafaie, each in view of Will. It is assumed for purposes of response that the rejection is relying on U.S. Pat. No. 5,848,634 (Will), which was relied on previously to reject claim 20 now canceled. Claims 4 and 5 depend from claim 1 and, therefore, recite a method for controlling a roller shade having a roller tube including the step of controlling a motor of the roller shade to vary rotational speed of the roller tube such that shade fabric linear speed is maintained substantially constant during multiple rotations of the roller tube.

For similar reasons as claim 3 above, neither Schmidt nor Vafaie provides the necessary teaching of claims 4 and 5 of varying rotational speed of a roller shade roller tube such that shade fabric linear speed is constant during multiple rotations of the roller tube, as required by claims 4 and 5. Furthermore, there is no teaching in Will that would suggest to one skilled in the art to modify Schmidt or Vafaie to maintain substantially constant shade fabric speed through multiple roller tube rotations. Claims 4 and 5, therefore, are not rendered obvious based on either Schmidt or Vafaie each in view of Will.

Each of claims 8-10 depends from claim 7 and, therefore, recite that rotational speed of a roller tube for a roller shade is varied by a control system such that shade fabric linear speed is maintained substantially constant during multiple rotations of the roller tube.

For similar reasons as claims 11 and 12 above, neither Schmidt nor Vafaie provides the necessary teaching of claims 8-10 of varying roller tube rotational speed for maintaining substantially constant shade fabric linear speed during multiple roller tube rotations. Furthermore, there is no teaching in Will that would suggest modifying either Schmidt or Vafaie to maintain substantially constant shade fabric speed through multiple

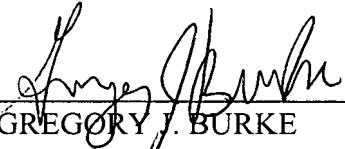
roller tube rotations. Claims 8-10, therefore, are not rendered obvious based on either Schmidt or Vafaie each in view of Will.

For the forgoing reasons, the applicants respectfully request that the rejection of claims 4, 5 and 8-10 under 35 U.S.C. 103(a) based on Schmidt or Vafaie each in view of Will be withdrawn.

It is respectfully submitted that the application is now in condition for allowance.

Respectfully submitted,

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